



U.S. Army Dugway Proving Ground, UT

and the West Desert Test Center

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The Nation's Chemical & Biological Defense Proving Ground



Report Documentation Page

Report Date 30Apr2001	Report Type N/A	Dates Covered (from... to) -
Title and Subtitle U.S. Army Dugway Proving Ground, UT and the West Desert Test Center		Contract Number
		Grant Number
		Program Element Number
Author(s) Glass, Michael		Project Number
		Task Number
		Work Unit Number
Performing Organization Name(s) and Address(es) U.S. Army Dugway Proving Ground, UT		Performing Organization Report Number
Sponsoring/Monitoring Agency Name(s) and Address(es) NDIA (National Defense Industrial Association) 211 Wilson Blvd, STE. 400 Arlington, VA 22201-3061		Sponsor/Monitor's Acronym(s)
		Sponsor/Monitor's Report Number(s)
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes Proceedings from the Weapons of Mass Destruction (WMD) Terrorism Preparedness & Response Conference & Exhibition, 30 April - 2 May 2001 Sponsored by NDIA		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 26		

Dugway Proving Ground

1,300 sq. miles

Restricted airspace
(58,000 ft)

**U.S. Army
Dugway Proving
Ground, UT**

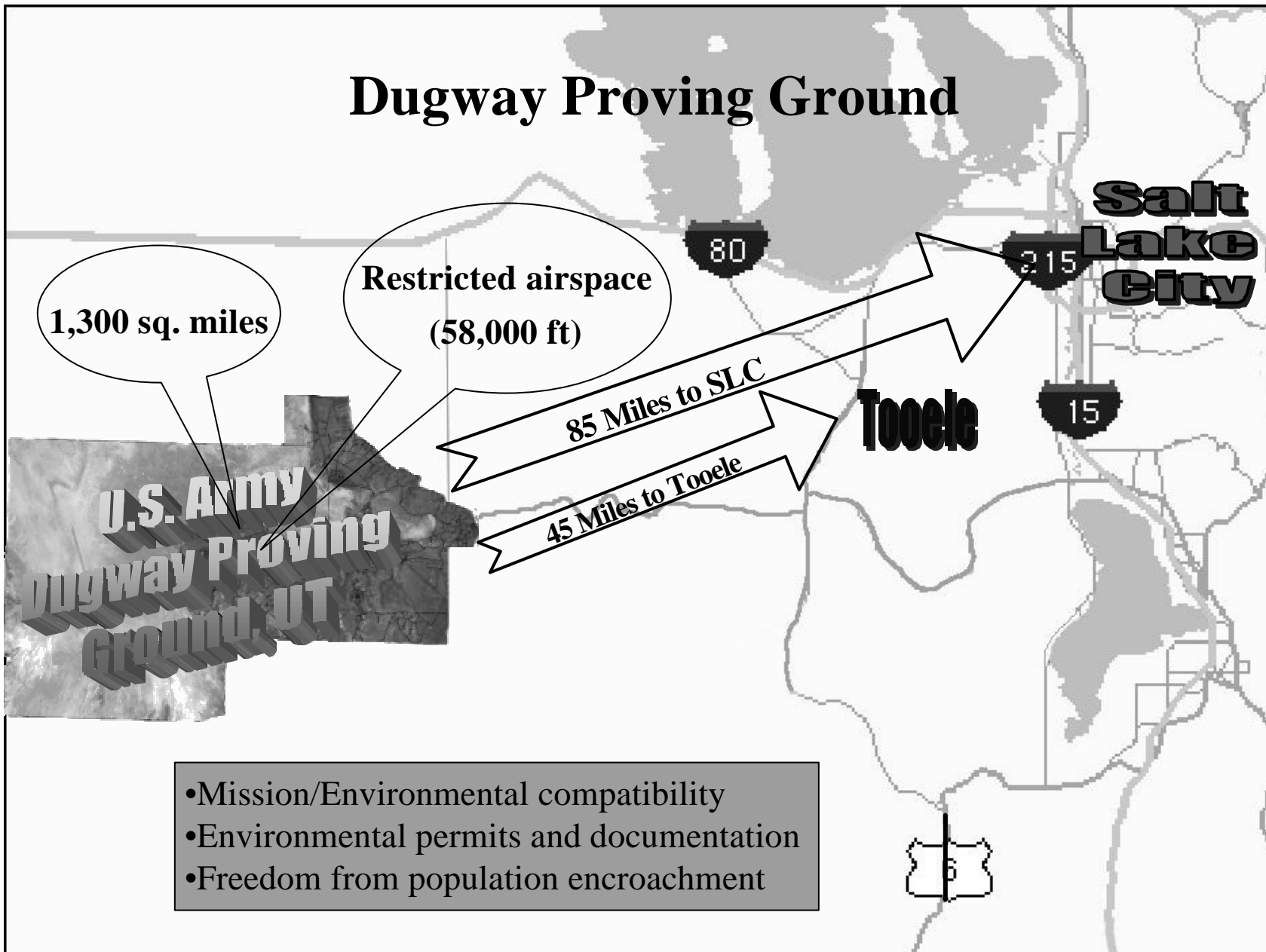
85 Miles to SLC

45 Miles to Tooele

Tooele

**Salt
Lake
City**

- Mission/Environmental compatibility
- Environmental permits and documentation
- Freedom from population encroachment





WDTC Mission



To exceed our customer's expectations in:

- Testing chemical/biological (C/B) defense material, smokes/obscurants, illuminants and munitions.
- Applied research to develop new methods for C/B testing, and meteorological measurement, modeling.
- Verification/validation of models, war fighters/first responder operations.
- Technology transfer to first responder with direct access to top-notch C/B defense materiel and C/B simulants in live-fire scenarios.
- Emission characterization and environmental technology testing.
- Perform as program manager for Army RDT&E meteorology and program manager Joint/CINC Operational Testing, DL-O49.

WMD-CST Support Site

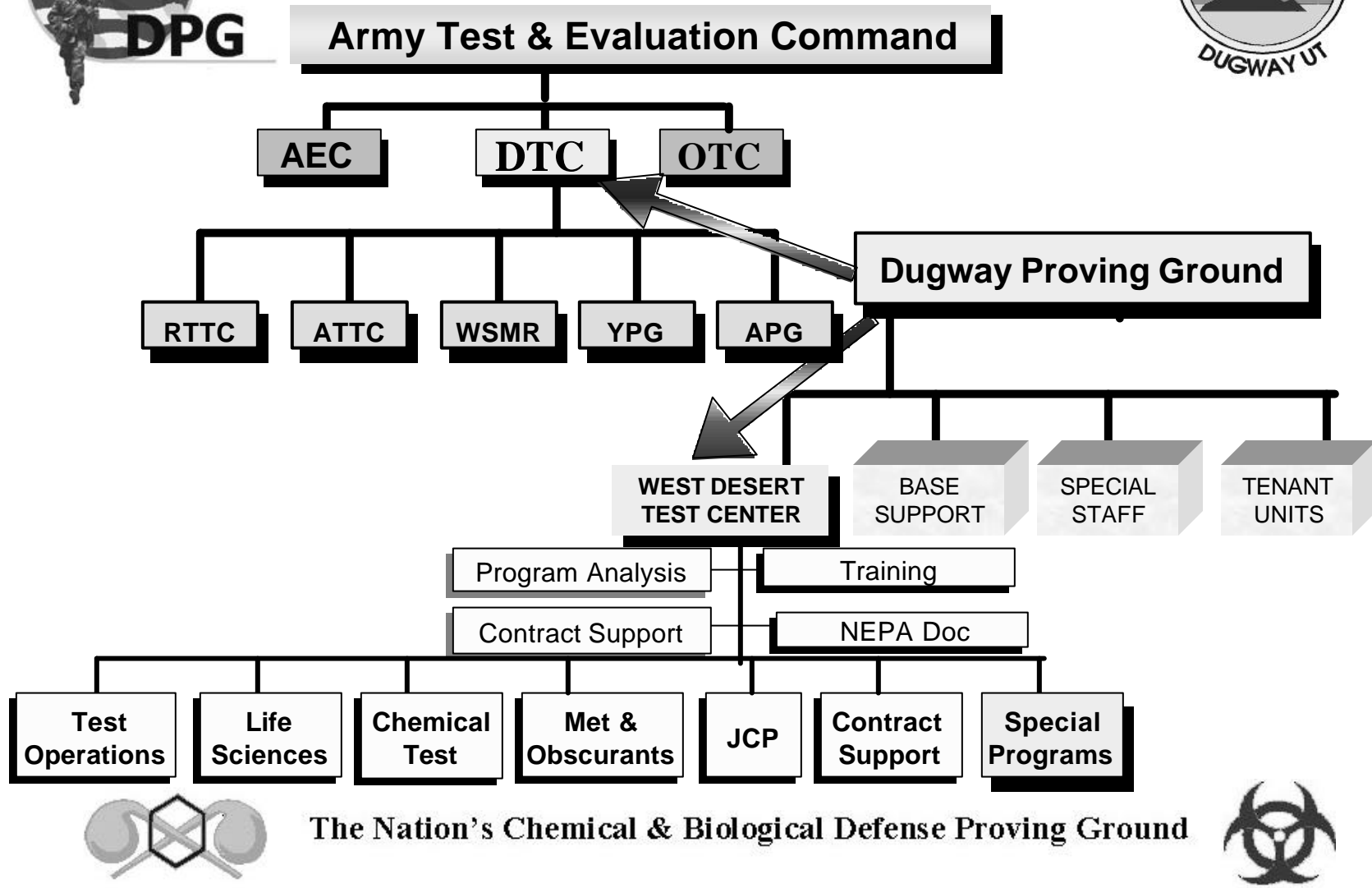


The Nation's Chemical & Biological Defense Proving Ground



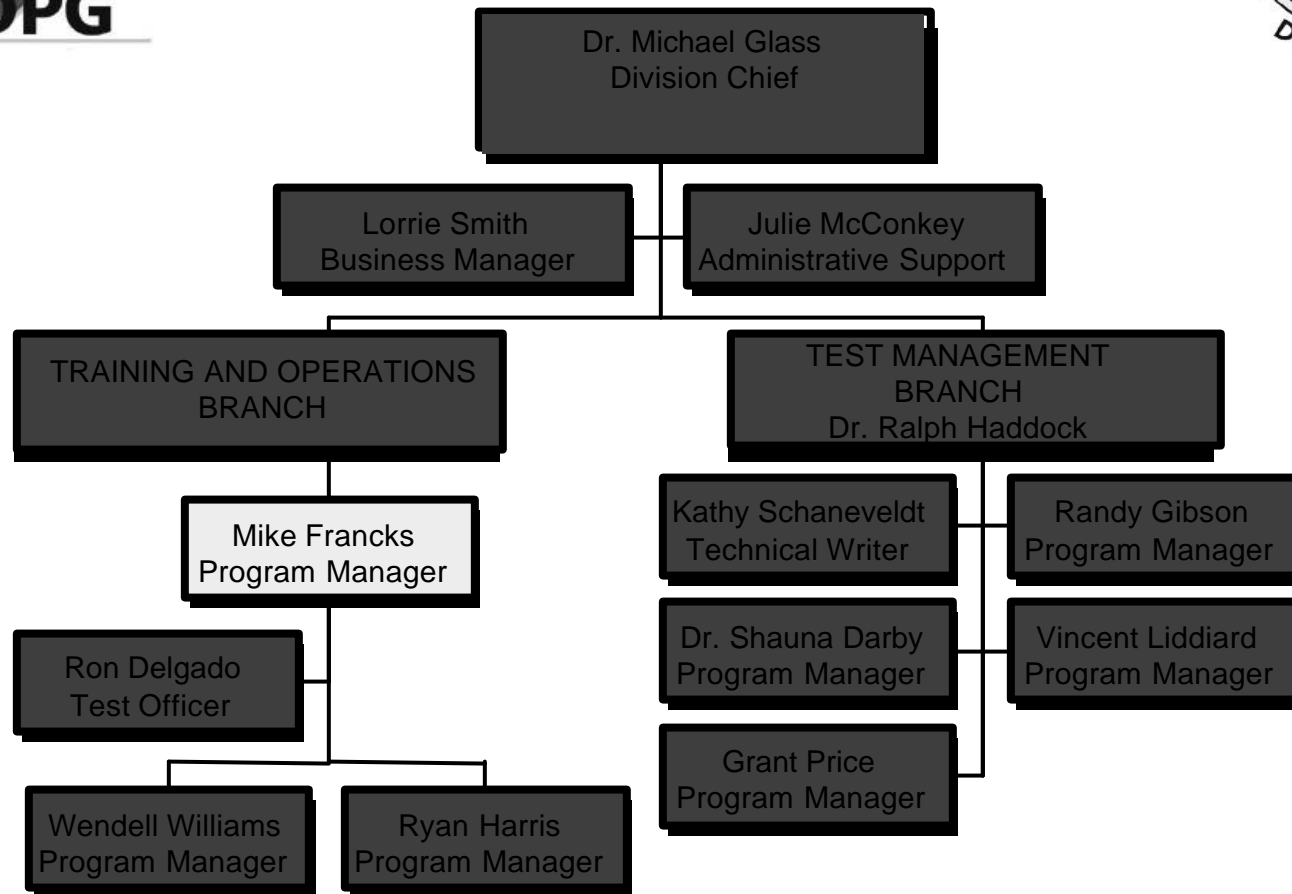


Command Relationship





Special Programs Division



The Nation's Chemical & Biological Defense Proving Ground





Test Infrastructure



Labs



Rec

**\$500 Million Estimated
Book Value**

ns Center

Chambers

Lothar Salomon
Life Sciences Test Facility



Michael Army Airfield



Melvin Bushnell
Materiel Test
Facility



Defensive Test Chamber



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Training Ranges



- 1,300 square miles of controlled access, multipurpose grid areas & facilities
- Certified to test with C/B simulants
- Independently evaluate & test C/B detection, protection, & decontamination equipment
- Validate tactics, techniques, & procedures



Test Grids



German Village



Wig Mountain



Target S



Granite Mt. Training Area



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Range Communications



Cell Phone
Tower Sites

- Fiber Optic Network
- 32 Channels of Video
- 7 Communications Consoles with 20 Radio Nets and Phone Patch
- Over 40 Communication Drops & Cell Phones
- Centralized Voice, Data & Video Communications in Mission Control Center
- Data Speed: 100 MB/sec
- Ethernet Connections
- Commercial Power to most Sites

Cell Phone Activation May '01



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Logistical Support



- **Ground Transportation and Maintenance**

- Vehicle Support
- 2 Maintenance Facilities

- **Medical and Emergency Services**

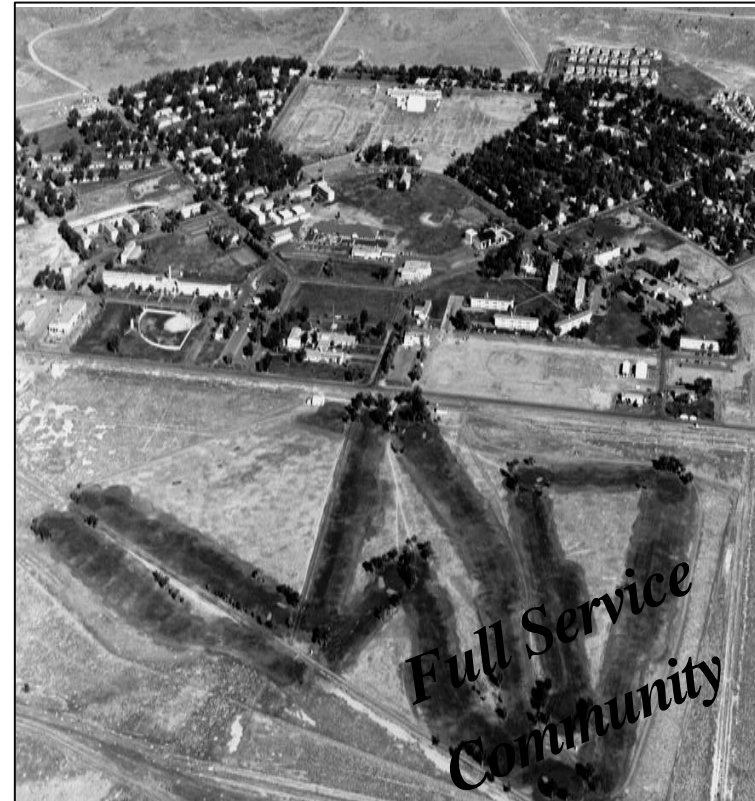
- Clinic, and Aid Stations
- 7 Ambulances
- 2 Fire Stations

- **Billeting**

- VIP Accommodations
- Dormitories
- Community Club, Commissary

- **Recreation**

- Golf
- Bowling
- Theater
- Exercise Facility



The Nation's Chemical & Biological Defense Proving Ground





DPG Homeland Defense Initiatives

Field Training

Laboratory Instruction

Graduate Level Classroom

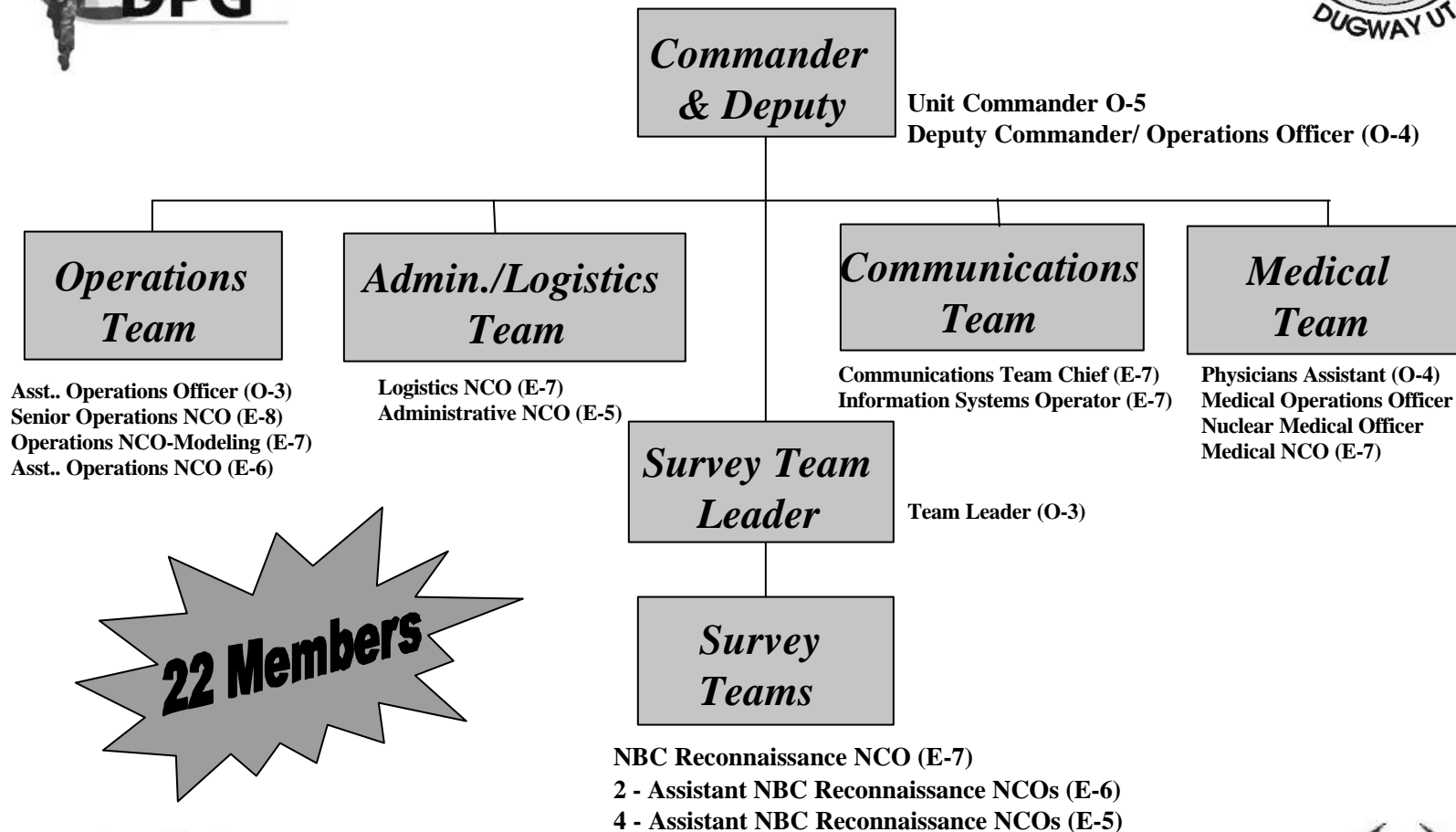
Equipment Certification

Tech Information Support

DPG Capabilities



WMD/CST Unit Organization



The Nation's Chemical & Biological Defense Proving Ground





Field Training Programs



- Tailored to Unit Objectives
- Use of simulated CBW agents with unique disseminations
- Realistic Scenarios with role players
- Immediate feedback from SME's (Ph.D. Level)
- Interim After Action Reviews (AAR's) and Formal After Action Reviews
 - Exercise Video
 - SME input
- Results are confidential



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Raid Challenge Exercise



- 10 Day Exercise including 5 separate Day Long “Free Play” Iterations
- Training Only, Not a test or Certification
- Unit Fully Deploys with all personnel and Equipment
- Recovery and Maintenance Time Included
- Patterned Using U.S.Army NTC Model



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Thrust Field Exercise



- 5 Day Exercise
- 72 Hour Continuous Chem/Bio Crisis and Consequence Event
- Trains Prolonged Operational and Logistical Sustainment of the CST's
- Detection and Sampling Challenges of Live Chem/Bio Agents Offered at the West Desert Labs



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Biological Sampling & Detection Course



- Identified Need for Specific Biological Training!
- 4 Day Course
- Students Work with Live Agents in Bio-Safety Level 3
- Training Includes:
 - Hand Held Assay (HHA)
 - Polymerase Chain Reaction (PCR)
 - Enzyme Linked Immuno Sorbent Assay (Elisa)
 - Origen® (ECL)



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Chemical and Biological Survey Course



- Survey team members only!
- 4 day course
- Repeated sampling of Chemical/ Biological Agents (BL3, Dilute Live Chemical, & Simulants)
- Focus is on presumptive detection, sampling, sample preparation & sample tracking.
- Team members will learn and practice best techniques of contamination control



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Real World Scenarios



- Terrorist and non-terrorist Chemical/ Biological events
 - Tailored
 - Realistic
- Large and Small scale Chemical and Biological weapons production/storage
- Terrorists dissemination devices
 - Unmanned Aerial Vehicles (UAVs)
 - Improvised Explosive Devices
 - Agricultural Sprayers



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Team Building Opportunities



- Complete Team involvement
- Challenge teams to think through all aspects of a Chem/Bio incident
 - Deployment to incident site
 - Detection and sampling of Chemical/ Biological Substances
 - Additional on-site Analysis of substances
 - Medical, Communications, and logistic Tasks
- Exercise Interface between CST and Civilian Emergency Responders/Agencies



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Field Exercise Players



- Participating Response Elements Local Police, and Fire
 - Local HAZMAT
 - FBI, and FBI HRMU
 - FEMA
 - State Emergency Management
 - Local Medical and Public Health Services
- Various “victim” role players used as necessary
- Civilian Local Responders Participation
 - CST’s encouraged to bring civilian counterparts from their region to participate in the exercise.



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CW Agents and Simulants



The controlled use of dilute chemical live agents and simulants to fully test detection, protection, and decontamination techniques and equipment

- *Nerve Agent Simulants*

- Triethyl Phosphate (TEP)
- Diethyl Malonate (DEM)
- Acetic Acid

- *Blister Agent Simulant*

- Methyl Salicylate

- *Dilute Live Agents*

- GA,GB,GF, VX, R33, HA,HF, L



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BW Agents and Simulants



The controlled use of live biological agents and simulants to fully test detection, protection, and decontamination techniques and equipment

- *BW Simulants*
 - BG
 - *Erwinia herbicola*
 - Ovalbumin
 - MS2
- *Vaccine Strains*
 - *Bacillus anthracis*
 - *Francisella tularensis*



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Completed Training as of 19 April 01'



- RC 00-1 FTX, 8th (CO) CST, June 00'
- BSDC 00-1, 4th (GA) CST, June 00'
- BSDC 00-2, 1st (MA) CST, Aug 00'
- BSDC 00-3, 10th (WA) CST, Sept 00'
- BSDC 01-1, 9th (CA) CST, Oct 00'
- BSDC 01-2, 2nd (NY) CST, Nov 00'
- BSDC 01-3, 8th (CO) CST, Nov 00'
- BSDC 01-4, 5th (PA) CST, Dec 00'
- RC 01-1 FTX, 2nd (NY) CST, Dec 00'
- RT 01-1 FTX, 9th (CA) CST, Jan 01'
- CBSC 01-1, 9th (CA) CST, Feb 01'
- CBSC 01-2, 4th (GA) CST, Feb 01'
- RT 01-1, FTX, 9th (CA) CST, Jan 01'
- CBSC 01-1, 9th (CA) CST, Feb 01'
- CBSC 01-2, 4th (GA) CST, Feb 01'
- BSDC 01-5, 71st (IA) CST, Mar 01'
- RC 01-2 FTX, 4th (GA) CST, Apr 01'
- CBSC 01-3, 3rd (PA) CST, Apr 01'

BSDC = Bio Sampling and Detection Course
CBSC = Chem/Bio Survey Course
RC = Raid Challenge
RT = Raid Thrust



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CST Training Scheduled as of 29 Mar 01'



- BSDC 01-5, 71st (IA) CST, Mar 01'
- RC 01-2 FTX, 4th (GA) CST, Apr 01'
- CBSC 01-3, 3rd (PA) CST, Apr 01'
- BSDC 01-6, 7th (MO) CST, Apr 01'
- BSDC 01-7, 91st (AZ) CST, May 01'
- RC 01-3 FTX, 8th (CO) CST, May 01'
- RT 01-2, FTX, 9th (CA) CST, May 01'
- RC 01-4, FTX, 5th (IL) CST, May 01'
- BSDC 01-8, 3rd (PN) CST, Jun 01'
- RC 01-5, FTX 71st (IA) CST, July 01'
- RT 01-3, FTX, 9th (CA) CST, Aug 01'
- RC 01-6, FTX, 10th (WA) CST, Aug 01'
- BSDC 01-9, 103rd (AK) CST, Aug 01'
- RC 01-7, FTX, 3rd (PA) CST, Sept 01'
- BSDC 01-10, 9th (CA) CST, Sept 01'
- RC 01-7, FTX, 71st (IA) CST, Oct 01'
- CBSC 01-4, 6th (TX) CST, Oct 01'
- RC 01-8, FTX, 6th (TX) CST, Nov 01'
- BSDC 01-11, 52nd(OH) CST, Nov 01'
- CBSC 01-5, 52nd(OH) CST, Dec 01'

BSDC = Bio Sampling and Detection Course
CBSC = Chem/Bio Survey Course
RC = Raid Challenge
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The Nation's Chemical & Biological Defense Proving Ground





How We Can Make it Better



- Expand and Improve Use of Simulants
- CST Feedback on needs and requirements
- Expand and Improve Existing Training Facilities.
- Dedicated Staff to support Mission.
- New Equipment Testing and Training.
- Institutional Support



The Nation's Chemical & Biological Defense Proving Ground





Summary



- Dugway Proving Ground has more credibility and experience than anyone else in chem/bio defense (Over 50 Years).
- Dugway is approved for open air release of chemical & biological simulants.
- Best possible subject matter experts.
- Opportunity to gain equipment confidence by live agent challenges.
- “One-Stop” Total Training Opportunity

